

## Preface

It is with great pleasure and profound delight that I extend a warm welcome to all the participants of the 11th NEIS Conference.



We are honored to host a multitude of highly motivated researchers in Hamburg for our hybrid event.

In 2013, our journey began with launching a conference that emphasizes innovative approaches within the realm of electrical power systems. Our mission has been, and continues to be, the presentation of cutting-edge research findings and the fostering of scholarly exchange between academia and industry. In 2016, we adopted the English language to enhance that forum into an international platform for emerging scientists, dedicated to promoting open and inspiring knowledge sharing, fresh approaches, and novel methodologies.

What was once known as the "Konferenz für Nachhaltige Energieversorgung und Integration von Speichern," or NEIS, has now evolved into the "NEIS Conference on Sustainable Energy Supply and Energy Storage Systems." Over the years, we have welcomed international keynote speakers and participants who have injected fresh perspectives and global connections into our community. Since 2017, the IEEE PES German Chapter Board has joined us as partners in organizing this conference, with additional support from the Cluster Renewable Energy Hamburg. We express our heartfelt gratitude to our collaboration partners for their support.

This year's conference continues to focus on electrical power grids and grid-related aspects, including load management, power system measurements and identification techniques, energy storage systems, and the integration of electric mobility into the grid. We received over 70 abstract submissions. Following a rigorous review process, 40 full papers have been accepted for presentation and publication. Authors, speakers, and participants have gathered from various corners of the globe, contributing to a diverse and dynamic gathering.

Our conference featured two thought-provoking keynote presentations. Professor Jovica Milanovic from the University of Manchester, United Kingdom, shared insights into the "Challenges of Operation and Control of Net-Zero Power Systems" while Professor Peter Palensky from Delft University of Technology, Netherlands, delved into "The Digital Transformation of Power Systems with its Pros and Cons."

In the spirit of showcasing recent industry developments, we hosted a workshop led by Marija Stevic from Opal RT Germany GmbH, focusing on Hardware-In-the-Loop testing for flexible electrical networks. An exhibition room, courtesy of EGSTON Power Electronics GmbH, morEnergy GmbH, and OPAL-RT Germany GmbH, enriched the conference experience.

We express our heartfelt thanks to our keynote and session speakers whose expertise greatly enriched the discussions during the conference sessions. Our appreciation extends to the session chairs, reviewers, the scientific advisory board, and the authors who presented their work, all of whom have contributed significantly to the quality of the conference.

Behind the scenes, our dedicated team of scientists and assistants ensured the seamless execution of this hybrid conference. This year's event was meticulously planned and expertly managed by the Organizing Committee, comprising Taha Genco, Edvard Avdevičius, and Jannes Seebeck. We express our sincere gratitude to the committee and the entire support team for their dedication.

Lastly, we thank Manuel Sommer and his team from the HSU Media Centre for providing audio-visual media equipment and support.

NEISbear, our renowned polar bear, celebrated its second birthday as the conference mascot. Wearing a dark blue t-shirt this year around, it has become a symbol of the collective commitment to reducing the climate impact of energy production, transmission, and usage. The bear's journey, from an unexpected laboratory visitor to a beloved conference mascot, is not only a tale of resilience but also a powerful reminder that, even in the face of adversity, positive change is attainable.



*Detlef Schulz*

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